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(54) Title: FRAGMENTS OR POLYMERS OF ALBUMIN WITH TUNABLE VASCULAR RESIDENCE TIME FOR USE IN THERAPEUTIC DELIVERY AND VACCINE DEVELOPMENT

(57) Abstract: An isolated fusion protein is provided which is a conjugate of a therapeutic polypeptide and an albumin fragment, such as a fragment including an individual domain or subdomain of albumin, or a polymer of albumin (e.g., dimers, trimers, etc.) and which is used to optimize the half-life of that therapeutic agent in the bloodstream in a tunable fashion based on the molecular weight of the fragment or polymer. Albumin fragments useful in the invention include fragments containing any of the individual domains and subdomains of human serum albumin, as well as fragments including specific combinations of binding regions or subdomains. The present invention thus provides fragments or polymers which will allow for optimizing half-lives of therapeutic polypeptides depending on their molecular weight, and this will optimize protein and vaccine therapeutics to have desired half lives for their greatest effectiveness.



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